

IN THE CLAIMS

1. (Currently Amended) An interconnection apparatus for securing a pair of elongate members, said apparatus comprising:

a solid non-hollow shaft, wherein said shaft is solid across the entire cross-section of said shaft and includes no internal cavity;

a first hook including a first internal surface having a curved portion configured to at least partly encircle a first one of the pair of non-parallel, elongate members; and

a second hook including a first end unitary and integral with the shaft at a position axially displaced from the first hook, said second hook terminating at a second end spaced laterally from the shaft and comprising a second internal surface having a curved portion including a ridge extending along said curved portion in a direction from the first end to the second end.

2. (Original) The apparatus of claim 1 wherein the first end, the second end of the second hook, and the shaft define a first plane and the first hook extends laterally from the shaft along the first plane.

3. (Original) The apparatus of claim 2 wherein the shaft has a round or oval cross-sectional profile.

4. (Original) The apparatus of claim 2 wherein the shaft defines a substantially planar plate.

5. (Original) The apparatus of claim 1 wherein the shaft is curved.

6. (Original) The apparatus of claim 1 comprising a first threaded aperture through said shaft and said curved portion of the first hook.

7. (Original) The apparatus of claim 1 wherein the first hook is secured to the first spinal rod and the second hook is secured to a second spinal rod, wherein the first spinal rod and the second spinal rod are positioned to lie non-parallel to each other.

8. (Original) The apparatus of claim 7 wherein the first spinal rod and the second spinal rod are positioned to not lie in the same plane.

9. (Original) The apparatus of claim 1 comprising:
a threaded aperture through said shaft; and
a threaded fastener threadedly received within said aperture, wherein said aperture and said fastener are positioned to secure an elongate member within the second hook.

10. (Original) The apparatus of claim 1 formed as a one-piece unit.

11. (Original) The apparatus of claim 1 wherein the internal surface of the first hook comprises a ridge extending along said curved portion.

12. (Previously Presented) A method of treating a spinal deformity, said method comprising:
securing a first spinal rod and a second spinal rod to two or more vertebrae;

providing an apparatus according to claim 1; and

interconnecting the first spinal rod and the second spinal rod by securing the first spinal rod to the first hook and the second spinal rod to the second hook.

13. (Currently Amended) An interconnection apparatus for securing a pair of elongate members, said apparatus comprising:

a solid non-hollow shaft, wherein said shaft is solid across the entire cross-section of said shaft and includes no internal cavity;

a first hook including a first internal surface having a curved portion configured to at least partly encircle a first one of the pair of non-parallel, elongate members; and

a second hook including a first end unitary and integral with the shaft at a position axially displaced from the first hook, said second hook terminating at a second end spaced laterally from the shaft and comprising a second internal surface wherein the second internal surface curves both in a first direction from the shaft to the second end and in a second direction oblique to the first direction, wherein said curves in said first and second directions are overlapping and intersecting.

14. (Original) The apparatus of claim 13 wherein the internal surface curves in a second direction substantially orthogonal to the first direction.

15. (Original) The apparatus of claim 13 wherein the internal surface curves in a second direction at an acute angle to the first direction.

16. (Original) The apparatus of claim 13 wherein the internal surface curves in a second direction at an obtuse angle to the first direction.

17. (Original) The apparatus of claim 13 comprising a first spinal rod secured to the first rod connector and a second spinal rod secured to the second rod connector, wherein the first spinal rod and the second spinal rod are positioned to lie non-parallel to each other.

18. (Original) The apparatus of claim 17 wherein the first spinal rod and the second spinal rod are positioned to not lie in the same plane.

19. (Original) The apparatus of claim 18 wherein the first hook, the second hook, and the shaft are formed as a one-piece unit.

20. (Original) The apparatus of claim 13 formed as a one-piece unit.

21. (Original) The apparatus of claim 13 wherein the first hook includes a first internal surface that curves both in a first direction and in a second direction oblique to the first direction.

22. (Currently Amended) An interconnection apparatus for securing an elongate member, said apparatus comprising:

a solid non-hollow shaft, wherein said shaft is solid across the entire cross-section of said shaft and includes no internal cavity;

a first hook including a first end connected to the shaft and terminating at a second end spaced laterally from the shaft, and an internal surface configured to engage the elongate member wherein the internal surface curves continuously both in a first direction from the shaft to the second end and in a second direction oblique to the first direction, wherein said curve in said first direction and said curve in said second direction are overlapping and intersecting.

23. (Original) The apparatus of claim 22 comprising an interconnection element including a first body having a first aperture formed therein and a stud extending from the body and wherein the shaft is received within the first aperture.

24. (Original) The apparatus of claim 23 comprising:
a second rod connector including a second shaft having a second body carried thereon, said second body having a second aperture formed therein, said second aperture having the stud received therein; and
a fastener configured to engage with the stud.

25. (Original) The apparatus of claim 24 comprising a first spinal rod secured to the first rod connector and a second spinal rod secured to the second rod connector, wherein the first spinal rod and the second spinal rod are positioned to lie non-parallel to each other.

26. (Original) The apparatus of claim 25 wherein the first spinal rod and the second spinal rod are positioned to not lie in the same plane.

27. (Original) The apparatus of claim 22 formed as a one-piece unit.
28. (Original) The apparatus of claim 22 wherein the shaft terminates in a first end having a protuberance extending laterally therefrom.
29. (Previously Presented) The apparatus of claim 23, wherein said stud is externally threaded.
30. (Previously Presented) The apparatus of claim 23, wherein said first hook and said second hook are moveable with respect to said interconnection member.
31. (New) The apparatus of claim 1, wherein the axial distance between said first hook and said second hook is permanent and non-adjustable.
32. (New) The apparatus of claim 13, wherein the axial distance between said first hook and said second hook is permanent and non-adjustable.